

IN THE CLAIMS

The following claim set replaces all prior versions, and listings, of claims in the application:

1. (Currently Amended) A method of treating pulp comprising a pulp digestion process which includes supplying wood material into a digester (2), and a brown stock washing process which includes discharging brown stock from the digester to a brown stock washer (8) to obtain washed pulp, and treating the washed pulp in an oxygen delignification stage (10) and in a washer (12) of the oxygen delignification stage whereby the pulp digestion and washing processes mainly employ counter-current washing in which clean wash liquid is brought to the end of the process and filtrate of the process is transferred counter-currently relative to the flow direction of the pulp through several washing stages at least partly to the digester (2) and from there further to chemical recovery CR, and wherein the method further comprises lowering the COD-level in the oxygen delignification stage (10) according to the following steps:

- a) between the digester and ~~a process stage immediately following the oxygen delignification stage (10) and the washer (12) of~~ following the delignification stage in the flow direction of the pulp, separating a portion LI from the wash liquid/filtrate to be recycled counter-currently relative to the flow direction of the pulp;
- b) treating the portion LI of the filtrate in a separation device (114, 214, 314, 414, 514) in order to produce two fractions CC and CD having a concentration difference in the liquid phase measured by a difference in at least one of dry solids, COD, and alkali;
- c) returning the fraction CC having a lower concentration to at least one of the following: either (1) substantially to the same point in the process from which the portion LI of the filtrate was extracted

according to step (a), or to some other point in the process in order to lower the COD level in the oxygen delignification stage (2) to the brown stock washer, or (3) to the washer (12) following the delignification stage (10);

- d) directing the fraction CD having a higher concentration either to the flow passing to the chemical recovery CR or the digestion plant or to a point in the process in which at least one of the dry solids, COD and alkali content of the liquid phase is at least as high as that of the fraction CD.

2. (Canceled)

3. (Canceled)

4. (Previously Amended) A method as claimed in claim 1, wherein the filtrate LI of step a) is obtained from filtrate flow passing to the brown stock washer (8) preceding the delignification stage (10).

5. (Previously Amended) A method as claimed in claim 4, wherein the fraction of step c) is returned to the wash liquid flow passing to the brown stock washer (8) and wherein the fraction of step d) is returned either to the flow BSF passing from the brown stock washer (8) to the digester (2), or directly to the flow passing to the chemical recovery CR.

6. (Previously Amended) A method as claimed in claim 1, wherein step a) includes taking the filtrate LI from circulation waters subsequent to the digester (2), and passing the fraction CD of step d) to liquid circulations of the digester (2) or directly to the chemical recovery CR, and returning the fraction CC of step c) to be used as wash

liquid in the brown stock washing (8) or in the wash (12) subsequent to the delignification stage (10).

7. (Previously Amended) A method as claimed in claim 1, wherein the washer either extracts at least two filtrates (FC, FD) having different concentrations or to which at least two filtrates having different concentrations are introduced.

8. (Previously Amended) A method as claimed in claim 7, the fraction of step c) is returned to be used as wash liquid in the washer with wash liquid FC being introduced thereto and having the lower concentration.

9. (Previously Amended) A method as claimed in claim 7, wherein the filtrate LI of step a) is taken from at least one filtrate FC of the washer.

10. (Previously Amended) A method as claimed in claim 7, wherein the filtrate LI of step a) is taken from at least one filtrate FC of the washer having the higher concentration.

11. (Previously Amended) A method as claimed in claim 1, wherein the separation device (114, 214, 314, 414, 514) is a membrane separator.

12. (Previously Amended) A method as claimed in claim 1, wherein the separation device is an evaporator (114, 214, 314, 414, 514), and wherein the fraction having the lower concentration is condensate and the fraction having the higher concentration is concentrate.

13. (Previously Amended) A method as claimed in claim 1, wherein the volume of the fraction CC having the lower concentration returned at stage c) from the separation treatment is no greater than 6 m³/adt.

14. (Canceled)

15. (Previously Amended) A method as claimed in claim 1, wherein soap is separated from the fraction obtained from step b) and having the higher dry solids content.

16. (Previously Amended) A method as claimed in claim 1, wherein pulp is further treated in a bleaching stage BL following the oxygen delignification stage so that at least part of the fraction CC to be returned at step c) is passed to a washer or press of the bleaching stage.

17. (Previously Amended) A method as claimed in claim 16, wherein at least a part of the wash liquids used in the bleaching stage BL is passed counter-currently up to the digester (2).

18. (Previously Added) A method as claimed in claim 1, wherein the volume of the fraction CC having the lower concentration returned at stage c) from the separation treatment is between about 1 – 5 m³/adt.

19. (Previously Added) A method as claimed in claim 1, wherein the volume of the fraction CC having the lower concentration returned at stage c) from the separation treatment is between about 1 – 3.5 m³/adt.